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What Are We Measuring? Convergence of Leadership with Interpersonal and Non-interpersonal Personality

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Abstract *Since leadership styles have been most commonly defined in terms of interpersonal influence, one would assume that they have their main projections on the interpersonal circumplex. In this study, the relations between leadership styles from the Multifactor Leadership Questionnaire and Leader Behaviour Description Questionnaire and both interpersonal and HEXACO personality scales are investigated. As expected, charismatic leadership and leader's consideration have strong projections on the interpersonal circumplex, with main projections on the warm-agreeable octant. Transactional leadership, passive leadership, and task-oriented leadership have considerably weaker or no projections on the circumplex. Leader's consideration is most strongly related to interpersonal personality while both transactional and passive leadership are most strongly related to non-interpersonal personality. It is concluded that especially charismatic leadership and leader's consideration are captured almost fully by the HEXACO personality inventory.*

Keywords *interpersonal circumplex; leadership; personality*

Introduction

Leadership and personality research have evolved differently, but share many of the same assumptions. Both are being regarded as useful for selection purposes (Goodstein & Lanyon, 1999; Judge et al., 1999); both focus on relations with organizational outcomes (Barrick & Mount, 1991; Lim & Ployhart, 2004; Lowe et al., 1996); and both study interpersonal interactions and their effects (Kacmar et al., 2003; Mount et al., 1998; Wagner et al., 1995). It is noteworthy, however, that many of the instruments measuring leadership have been constructed without reference to the main personality dimensions, while characteristics prototypical of leaders, such as dynamic, trustworthy, and organized (Lord & Maher, 1993), are similar to traits used in lexical personality research (e.g. Ashton et al., 2004). This study tries to address this issue by investigating the relations between personality trait and leadership style measures. In contrast with recent studies that have looked at the relations between the main personality traits and leadership styles (Bono & Judge, 2004; Crant &

Bateman, 2000; Judge & Bono, 2000), we will argue that some of the most notable leadership instruments are actually measuring aspects of personality, and not much else. Practically, assessors interested in leadership may want to know what, if any, leadership qualities are measured in personality assessments. This study tries to answer this question by investigating the relations between leadership and the main interpersonal and non-interpersonal dimensions of personality.

Leadership has been defined in a number of different ways. Most of these definitions include a reference to a) acts of influence, b) the target(s) of influence, and c) the goals served with the acts of influence. Yukl (2002), for instance, defines leadership as:

The process of influencing others to understand and agree about what needs to be done and how it can be done effectively, and the process of facilitating individual and collective efforts to accomplish the shared objectives. (p. 7)

Although some have defined leadership in pure perceptual terms as ‘the process of being perceived by others as a leader’ (Lord & Maher, 1993: 11), most behavioural definitions imply certain types of acts or behaviours that may influence others (‘subordinates’) to serve the goals of a leader or his/her organization. From the behavioural or style perspective, several questionnaires have been constructed. Most notable of these have been the Leader Behaviour Description Questionnaire (LBDQ, Fleishman, 1953) and the Multifactor Leadership Questionnaire (MLQ, Bass, 1985). Although the most well-known of the LBDQ questionnaires, LBDQ Form XII, contained 12 leadership subscales and was actually constructed to ensure that no important leadership behaviours were left out, ironically only two of the subscales became popular, i.e. consideration and initiating of structure (Judge et al., 2004). The MLQ consists of eight subscales, but often these are combined into the following three main dimensions of leadership: transformational leadership, transactional leadership, and passive (or laissez faire) leadership (Bass et al., 2003; Judge and Piccolo, 2004).

Both the LBDQ and the MLQ measures have been shown to be important predictors of outcome criteria, such as subordinates’ job satisfaction, motivation, and group or organizational performance (Bass et al., 2003; Judge & Piccolo, 2004; Judge et al., 2004; Lowe et al., 1996). Although earlier research has shown transformational leadership to add variance beyond consideration and initiating structure (Seltzer and Bass, 1990), recent meta-analyses have shown that the validities of the LBDQ and MLQ scales are remarkably similar (Judge & Piccolo, 2004; Judge et al., 2004). Judge and colleagues found the following estimated true score correlations of leadership styles with an overall criterion, i.e. consideration: $\rho = .48$; initiating structure: $\rho = .29$; transformational leadership: $\rho = .44$; and contingent reward (an aspect of transactional leadership): $\rho = .39$ (Judge & Piccolo, 2004; Judge et al., 2004). Not only do Judge et al. (2004) note the resemblance of consideration to the individualized consideration facet of transformational leadership, initiating structure also shares some notable features with transactional leadership, such as its focus on the active management of task-related behaviours.

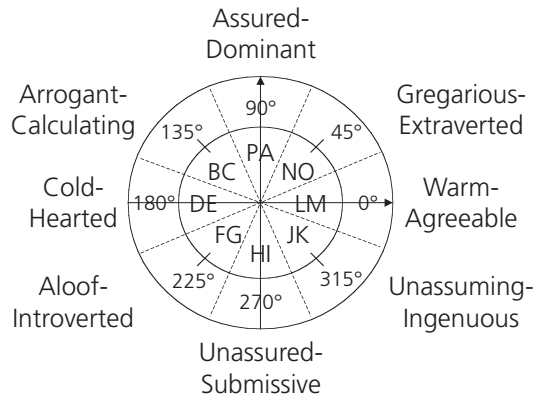
There are a number of quantitative reviews that have investigated the relation between leadership and personality (Bono & Judge, 2004; Judge et al., 2002; Lord et al., 1986). For instance, Judge et al. (2002) showed that ‘Big Five’ traits are

consistently related to leadership effectiveness and emergence. Of these, extraversion and openness to experience were the most important correlates of leadership effectiveness, while leadership emergence was significantly related to extraversion, openness to experience, conscientiousness, and disagreeableness. Judge and Bono (2000) found extraversion, together with agreeableness, to be the most important correlates of transformational leadership. In a meta-analysis of the relations between MLQ scales and personality, Bono and Judge (2004) showed charismatic leadership (a combination of idealized influence and inspirational motivation) to be most strongly related to extraversion, openness, and agreeableness, while individualized consideration was most strongly related to extraversion and agreeableness. The relation between Big Five personality and passive leadership was weaker, but the main negative correlates of passive leadership were agreeableness and conscientiousness.

Recent studies have shown that the Big Five may not offer a full description of the personality dimensions that are part of the human lexicon (Ashton & Lee, 2001; Ashton, Lee, De Vries et al., 2006; Ashton, Lee & Goldberg, 2004; Ashton, Lee, Perugini et al., 2004). In a reanalysis of the eight main psycho-lexical personality studies on which the five-factor structure of personality is based, Ashton, Lee, Perugini et al. (2004) and Ashton, Lee and Goldberg (2004) showed that instead of five, all of these studies provided strong evidence of a sixth factor, which the authors named 'honesty-humility'. Additionally, due to the addition of this sixth factor, the factor structure of the remaining five factors is somewhat changed from the Big Five structure, with the most important modifications in the agreeableness and emotional stability factors. Agreeableness in the new six-factor solution contains content referring to even temper and lack of irritability, while the new factor 'emotionality' contains content referring to sensitivity and lack of toughness, and lacks content referring to irritability. Based on these findings, Lee and Ashton (2004) have constructed a new personality inventory, called the HEXACO-PI, in which HEXACO refers to the six underlying dimensions: Honesty-humility, Emotionality, eXtraversion, Agreeableness, Conscientiousness, and Openness to experience.

It appears from the leadership studies that two of the 'HEXACO' dimensions, i.e. extraversion and agreeableness, are the most likely correlates of leadership. Personality psychologists have referred to extraversion and agreeableness as the 'interpersonal dimensions' (Trapnell & Wiggins, 1990). The most well-known other conceptualization of the interpersonal dimensions is the interpersonal circumplex (Leary, 1957; Wiggins, 1995). The interpersonal circumplex consists of two dimensions, usually referred to as 'dominance' and 'affiliation', and eight octants that are arranged in a circular pattern (Figure 1). To date, a great number of studies have been conducted using one of the instruments that are available to measure the interpersonal circumplex. Several studies have shown that the interpersonal circumplex is the best conceptualization of the interpersonal personality domain (e.g. De Raad, 1995) and is highly useful in research on interpersonal relationships (Markey et al., 2003; Tracey et al., 2001).

Although the link between the personality dimension agreeableness and affiliation of the interpersonal circumplex does not seem to be disputed, some scholars have objected on the one-on-one relation between the personality dimension extraversion and dominance of the interpersonal circumplex. According to several authors, the

Figure 1 *The interpersonal circumplex (Leary, 1957)*

dominance dimension of the interpersonal circumplex actually has to be considered a combination of extraversion and emotional stability (or lack of emotionality) (Hofstee et al., 1992; Saucier, 1992; Saucier et al., 2001). Empirical evidence for this position is provided by Pincus et al. (1998) who showed, using factor analyses, that the affiliation dimension of the interpersonal circumplex shared high loadings ($> .60$) on the same dimension with agreeableness, while the dominance dimension of the interpersonal circumplex shared high loadings on the same dimension with both extraversion and neuroticism (which had a negative loading). Consequently, instead of two, at least three of the dimensions of the HEXACO six-dimensional space seem to measure interpersonal personality: agreeableness, extraversion, and emotionality.

This study sets out to test the convergence of the MLQ and LBDQ with the HEXACO-PI and the interpersonal circumplex. Of the LBDQ and MLQ scales, we expected MLQ transformational leadership and LBDQ consideration to have the strongest relation with the interpersonal scales (i.e. extraversion, agreeableness, and emotionality) of the HEXACO-PI and both to have a strong projection on the interpersonal circumplex. By contrast, both transactional leadership (MLQ) and initiating structure (LBDQ) can be considered more non-interpersonal than interpersonal. Although dominance or control certainly seems to play a role in transactional leadership and initiating structure, the focus of both of these scales is more on the creation of structures in which subordinates may operate than on the actual interaction between the leader and his/her subordinates. For instance, transactional leadership focuses on the provision of (external) rewards, while initiating structure focuses on goal setting. Thus, both of these scales should not be strongly related to the three interpersonal dimensions of the HEXACO and they should not have strong projections on the interpersonal circumplex; but they might be related to non-interpersonal personality (i.e. especially conscientiousness). Last of all, passive leadership (MLQ) is the antithesis of leadership and should show a low amount of projection on the interpersonal circumplex, although a negative relation with extraversion is to be expected. Additionally, a negative relation of passive leadership with non-interpersonal personality dimensions, such as conscientiousness, is also to be expected.

Method

Sample and procedure

The sample consisted of 152 students with work-related experience in a subordinate role, of which 50 (32.9%) were men and 101 (66.4%) were women (and one missing value). The mean age is 21.8 years ($SD = 2.9$). On average, they knew their supervisor 2.4 years ($SD = 2.7$) and spent 15.4 hours per week ($SD = 9.6$) with the group or organization for which they were working. The respondents were asked to fill out an internet-based questionnaire in a computer room at the university.

Measures

To establish the amount of convergence of personality and leadership, respondents (i.e. subordinates) in this study provided other-reports (i.e. ratings of their leader) on all leadership and personality measures. Both a shortened Dutch version of the MLQ and a Dutch version of the LBDQ were used to measure leadership. The MLQ items were derived from the factor analysis of Den Hartog et al. (1994, 1997). In line with others (e.g. Heinitz et al., 2005), who were unable to empirically distinguish the full range of nine leadership factors proposed by Bass and Avolio (1997), they focused on a reduced set of three leadership factors: charismatic leadership, transactional leadership, and passive leadership. In this study, the reliabilities of the MLQ scales were as follows (see Table 1): charismatic leadership ($\alpha = .91$), transactional leadership ($\alpha = .67$), and passive leadership ($\alpha = .67$). The two scales of the Dutch version of the LBDQ (Fleishman, 1953; De Vries et al., 2002; Syroit, 1979) showed high reliabilities, i.e. consideration ($\alpha = .92$) and initiating structure ($\alpha = .81$).

A translation-back-translation procedure was followed to arrive at the Dutch version of the HEXACO-PI (De Vries et al., 2004; Lee et al., 2005). Any differences from the original items were discussed until consensus was reached. Each of the HEXACO-PI scales consisted of 18 items. In this study, subordinates rated their leader on the 108 items of the HEXACO-PI.¹ All of the scales showed good to excellent psychometric properties, with all but one of the reliabilities (emotionality: $\alpha = .79$) exceeding .80. Additionally, two-thirds of the correlations between the personality scales were not significantly different from zero, and except for a correlation of .39 between honesty-humility and agreeableness, none of the few remaining significant correlations exceeded the .30 level (see Table 1).

To call a scale (such as transformational leadership or leader's consideration) an interpersonal construct, the scale's correlations with the interpersonal circumplex facets should show a characteristic sinusoidal projection (Gurtman, 1993; Wiggins et al., 1989). We constructed eight adjective scales to represent the octants of the interpersonal circumplex in the following way. First, we obtained adjectives from 400 self-ratings on 551 Dutch personality adjectives (Brokken, 1978; De Raad, 1992; De Raad et al., 1992). Second, the loadings on the first two factors of the six-factor solution (Ashton et al., 2004), which represented extraversion and agreeableness, were re-rotated to obtain the highest loading adjectives on eight circumplex octants. The following rules were determined to choose an adjective: 1) adjectives should have their highest loading on the octant rather than another octant, and 2) their main

Table 1 Correlation matrix with reliabilities (italic) on the diagonal (listwise n = 151)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1. Rater's gender (M = 1/F = 2)	–																						
2. Rater's age	–.25	–																					
3. Time with leader	–.10	.07	–																				
4. Working hours	–.16	.23	–.09	–																			
5. IC: LM	–.01	–.07	–.10	.01	–.93																		
6. IC: NO	.00	–.15	.10	.01	.70	.86																	
7. IC: PA	–.04	–.05	.13	.14	–.24	.17	.84																
8. IC: BC	–.01	–.01	.13	.09	–.64	–.30	.67	.88															
9. IC: DE	–.05	.04	.14	.11	–.73	.48	.53	.81	.91														
10. IC: FG	–.10	.09	.01	.10	–.59	–.73	.12	.48	.67	.88													
11. IC: HI	–.14	.07	–.07	.01	.07	–.41	–.32	–.20	–.01	.51	.81												
12. IC: JK	–.09	–.08	–.07	–.05	.85	.48	–.37	–.69	–.72	–.42	.34	.91											
13. Honesty-humility	–.08	–.05	–.06	–.17	.26	.05	–.37	–.50	–.41	–.17	.28	.36	.84										
14. Emotionality	.16	–.16	–.12	–.07	.02	–.03	.05	.06	.11	–.04	–.06	–.06	.01	.79									
15. eXtraversion	.06	–.12	.03	–.10	.43	.68	.08	–.23	–.42	–.73	–.55	.21	–.07	–.06	.86								
16. Agreeableness	–.15	.01	–.08	–.09	.67	.34	–.53	–.81	–.72	–.38	.26	.77	.39	–.12	.26	.91							
17. Conscientiousness	.10	.01	–.22	.04	.23	.08	–.18	–.28	–.35	–.15	.07	.17	.22	.00	.12	.16	.87						
18. Open to experience	–.07	.10	.08	.10	.23	.16	–.05	–.23	–.13	–.07	.10	.18	.26	.14	.09	.25	.16	.84					
19. Charismatic L.	–.08	–.11	–.01	–.01	.65	.56	–.06	–.44	–.56	–.44	.03	.54	.33	–.21	.47	.51	.47	.35	.91				
20. Transactional L.	.00	–.07	–.08	.05	.23	.13	.08	.03	–.14	–.06	.11	.21	–.01	–.07	.11	.05	.29	.00	.47	.67			
21. Passive L.	–.01	.06	.08	.10	–.13	–.11	.01	.12	.20	.19	.10	–.06	–.16	.04	–.23	–.01	–.50	–.08	–.34	–.20	.67		
22. Consideration	–.03	–.06	–.14	.02	.80	.57	–.31	–.70	–.76	–.62	.05	.75	.38	.02	.50	.74	.31	.24	.72	.25	–.18	.92	
23. Initiating structure	.06	–.13	–.07	–.03	–.16	–.06	.28	.37	.20	.06	–.15	–.22	–.09	–.02	.04	–.32	.29	–.18	.19	.52	–.19	–.11	.81

Notes: For an explanation of the scales, see text; correlations > .15 are significant at p < .05.

loading on the octant should differ by at least .10 from the nearby octant. Example adjectives from the interpersonal circumplex octants are: friendly (LM, 14 items), dynamic (NO, 14 items), fiery (PA, 14 items), irascible (BC, 13 items), unfriendly (DE, 17 items), introvert (FG, 12 items), quiet (HI, 14 items), and good-natured (JK, 12 items). The inter-octant correlations are in line with expectations of monotonic increasing and decreasing correlations (see Table 1) and circumplex analysis using CIRCUM (Browne, 1992) confirmed the circumplex nature of the scales based on the adjectives. Similar to the HEXACO-PI, the respondents of this study provided ratings of their leader on the circumplex adjectives. All the reliabilities of the scales based on these adjectives of the different circumplex octants exceeded .80 (Table 1).

Analyses

Based on the correlations of the leadership styles with the interpersonal circumplex octants, construct correlation curves were constructed along the procedure suggested by Gurtman (1993), using the formula $r(i) = e + a \times \cos(\Theta(i) - \delta)$, in which $r(i)$ is the scale's correlation with octant i of the circumplex, e is the elevation of the curve, a is the amplitude, $\Theta(i)$ is the angle of octant i , and δ is the angular displacement of the curve. Strong projections on the interpersonal circumplex are projections with $a > .60$; weak projections are projections with $.20 < a < .40$; and scales with no projections are those with $a < .20$. To test the difference in explained variance, multiple R 's were computed for the relations of the interpersonal and non-interpersonal scales with the leadership scales, which in turn were converted to z -scores using Fisher's r -to- z transformation, before being submitted to F -tests. Since none of the background variables were significantly related to the leadership scales, these were left out of the analyses.

Results

In Table 1, the correlations between the variables investigated are reported. Based on the correlations between the interpersonal circumplex adjectives scales and the leadership styles provided in Table 1, construct correlation curves were constructed. These are shown in Figures 2–3. As can be seen in Table 1 and both Figures, charismatic leadership and leader's consideration have strong projections on the interpersonal circumplex. By contrast, transactional leadership, passive leadership, and leader's initiating structure do not have strong projections on the interpersonal circumplex. The main projection of charismatic leadership is on the LM (0 degree; warm-agreeable) octant (Figure 2). The amplitude of the projection of charismatic leadership on the interpersonal circumplex is .62, which can be considered a strong projection. Of all leadership scales, leader's consideration has the strongest projection ($a = .83$) on the interpersonal circumplex, with a main projection on the LM (0 degrees; warm-agreeable) octant (Figure 3). Initiating structure has a weak projection ($a = .33$) on the interpersonal circumplex, with a main projection on the BC (135 degrees) octant (Figure 3). According to the definition of projections, transactional leadership does not have a projection on the interpersonal circumplex, with $a = .16$ (Figure 2) and neither does passive leadership, with a projection of .16 on the interpersonal circumplex.

Figure 2 *The construct correlation curves (CCCs) of the MLQ*

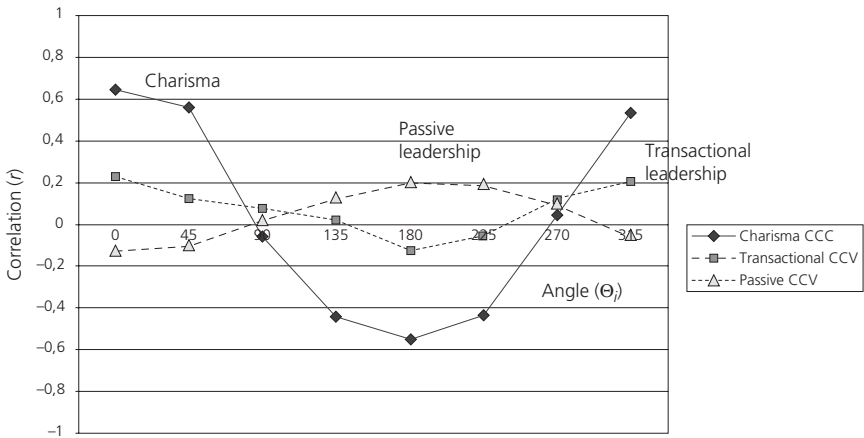
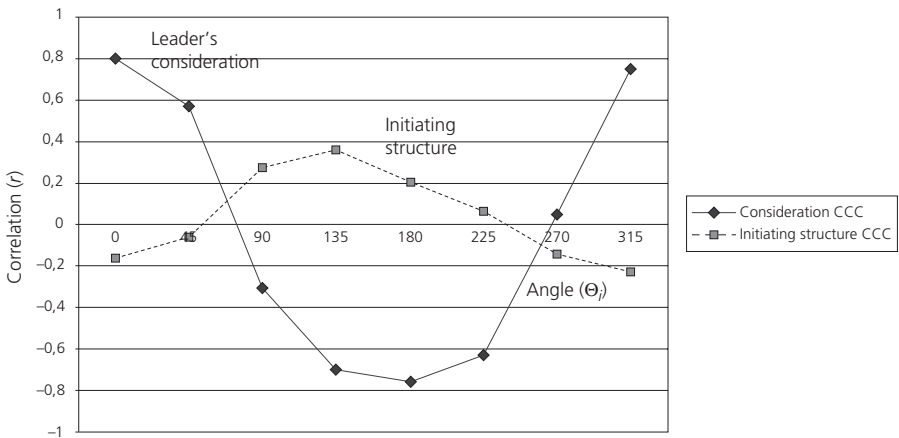


Figure 3 *The construct correlation curves (CCCs) of the LBDQ*



We expected a stronger relation between the interpersonal HEXACO scales and charismatic leadership and leader's consideration than between non-interpersonal HEXACO scales and these two leadership styles. These expectations are confirmed for leader's consideration, but not for charismatic leadership. Although conscientiousness and honesty-humility are related to leader's consideration, the main correlates are agreeableness and extraversion. Although the interpersonal personality characteristics explain more variance in charismatic leadership than the non-interpersonal personality characteristics, this amount of variance (when converted to z -scores) is not significantly different. Charismatic leadership bears all the hallmarks of a very desirable leadership style, with highly positive relations especially with extraversion and conscientiousness ($\beta = .33, p < .01$), but also with agreeableness,

openness to experience ($\beta = .20, p < .01$) and honesty-humility ($\beta = .13, p < .01$), and a negative relation with emotionality ($\beta = -.19, p < .01$). Note that the relation of charismatic leadership with emotionality is opposite in sign from that of leader's consideration with emotionality.

Additionally, we expected the non-interpersonal personality scales to explain more variance in transactional leadership, passive leadership, and leader's initiating structure than the interpersonal ones. For transactional leadership and passive leadership these expectations were endorsed by the data (see Table 2). The non-interpersonal personality factor conscientiousness had the only significant relation with transactional leadership in the regression equation. Although extraversion ($\beta = -.23, p < .01$) and agreeableness ($\beta = .19, p < .05$) were related to passive leadership, the main predictor was conscientiousness ($\beta = -.47, p < .01$). However, the expectations were not supported for initiating structure. Initiating structure was positively related to conscientiousness ($\beta = .35, p < .01$), but also negatively related to agreeableness ($\beta = -.38, p < .01$).

Conclusions and discussion

The main conclusion of this study is that both charismatic leadership and leader's consideration can be almost entirely captured in terms of the leader's personality, while this is much less true for transactional leadership, passive leadership, and leader's initiating structure. Additionally, this study shows that each of the leadership styles investigated has a markedly different personality profile. For instance, in this study, charismatic leadership is characterized by high extraversion, high conscientiousness, high agreeableness, high openness to experience, high honesty-humility, and *low* emotionality, while leader's consideration is characterized by high agreeableness, high extraversion, high conscientiousness, high honesty-humility, and *high* emotionality. Viewed from the perspective of the interpersonal circumplex, charismatic and considerate leaders appear to have strong positive interpersonal characteristics and are seen as highly warm and agreeable in their interaction. Initiating structure is less interpersonal. Leaders high on initiating structure may not come across as very 'likeable' to their subordinates. That is, subordinates may see those leaders as somewhat arrogant and calculating. Both transactional leadership and passive leadership are virtually devoid of interpersonal characteristics.

The results offer support to earlier findings. For instance, Judge and Bono (2000) found the personality traits extraversion and agreeableness to be the most important predictors of transformational leadership. Extraversion was the most important predictor of charismatic leadership when using the HEXACO-PI, while agreeableness was the most important predictor of charismatic leadership in the interpersonal circumplex. Being both extraverted and agreeable may help leaders adequately deal with social situations and may put subordinates more easily 'at ease'. The positive correlation in this study between charismatic leadership and openness to experience shows that leaders with high openness to experience are more likely to come up with new visions and ideas, which are important elements of charisma. Leaders who are more expressive, enthusiastic, sociable, and supportive of subordinates might in turn be better able to motivate subordinates to try these new ideas and insights. In contrast with findings of Judge and Bono (2000), who did not find a relation between a

Table 2 The relation between leader's HEXACO personality and leadership styles (both rated by subordinates) (n = 151)

HEXACO-PI	Leadership styles							
	Charismatic L.		Transactional L.		Passive leadership		Leader consideration	
	Final β s ^a	R ² /F/p	Final β s ^a	R ² /F/p	Final β s ^a	R ² /F/p	Final β s ^a	R ² /F/p
Interpersonal var's								
L's eXtraversion	.35**		.06		-.23**		.34**	
L's Agreeableness	.24**		.02		.19*		.58**	
L's Emotionality	-.19**		-.05		.05		.11*	
R ² (I) ^b		.40**		.01		.06*		.65**
Non-interpersonal var's								
L's Conscientiousness	.33**		.30**		-.47**		.15**	
L's Openness to exper.	.20**		-.03		.00		.00	
L's Honesty-humility	.13*		-.07		-.15		.14*	
R ² (N) ^b		.33**		.09**		.25**		.22**
F(R ² (I) - R ² (N)) ^c	1.12		2.33		3.73		7.57	
p	.26		.02		<.01		<.01	
Total R ²	.60**		.10*		.31**		.70**	
Adjusted total R ²	.58**		.06*		.28**		.69**	
								.12**
								.14**
								.50
								.62
								.25**
								.21**

*p < .05; **p < .01.
^a These are the final β s, i.e. with all six HEXACO scales in the regression.
^b These are R²s when only three of the HEXACO scales (either interpersonal or non-interpersonal) are in the equation
^c The F values are derived by calculating the difference from the z-scores from the multiple Rs to converted R²s.

leader's conscientiousness and transformational leadership, this study did establish a strong positive relation between conscientiousness and charismatic leadership. This study shows that, apart from sociability, leaders also have to be well-organized and self-disciplined in their behaviours to be considered a charismatic example for their subordinates. Consequently, in combination with honesty-humility, it appears that leaders have to 'walk their talk' to enhance their charismatic appeal.

When considering emotionality as part of the interpersonal circumplex (Hofstee et al., 1992; Saucier, 1992; Saucier et al., 2001), the results show that leader's consideration is the most interpersonal of the leadership styles by virtue of a strong positive relation with agreeableness, while, relative to the amount of variance explained by interpersonal personality, transactional leadership and passive leadership are the most non-interpersonal leadership styles. Charismatic leadership has strong relations with both interpersonal and non-interpersonal personality dimensions, while initiating structure is also related to interpersonal personality by virtue of a negative relation with agreeableness. However, confirming the non-interpersonal aspects of transactional leadership and initiating structure is the strong positive relation with leader's conscientiousness.

Studies using different sources to measure personality and leadership, as reported in Bono and Judge (2004), may fall into the trap of concluding that personality is not an important correlate of leadership, while convergence is actually very strong. Meta-analyses of agreement between different sources have revealed that the agreement of different sources on subjective ratings is rather poor (Conway & Huffcutt, 1997; Harris & Schaubroeck, 1988). Of the meta-analytic derived mean correlations between sources, the correlation between self-ratings and subordinate ratings appears to be particularly low ($r = .14/p = .26$; Conway & Huffcutt, 1997). A recent large-scale study on self-subordinate agreement on leadership behaviours reported similar results, i.e. $r = .16$ (Ostroff et al., 2004). In a similar vein, Warr and Bourne (1999) reported a correlation between self and subordinate ratings of leadership of .24. These figures are almost similar or even lower than the meta-analytical derived relation between leader's self-rated extraversion and charisma or transformational leadership rated by his/her subordinates or peers (Bono & Judge, 2004). The congruence estimates obtained by Conway and Huffcutt (1997), Warr and Bourne (1999), and Ostroff et al. (2004) may actually indicate a ceiling to the correlations obtained from different sources, especially when they are derived from different hierarchical levels in an organization. In contrast with Bono and Judge's (2004) conclusion that the 'results linking personality with ratings of transformational and transactional leadership behaviors were weak' (p. 906), compared with the low level of agreement of different rater sources, the effect sizes that they report may actually indicate a strong overlap especially of personality and transformational leadership style measures. More generally, the focus on multi-source ratings, although laudable, may clash with the reality of low inter-rater agreement, especially when the raters, such as leaders and subordinates, do not share each other's functional perspectives. Warr and Bourne (1999) argue that the average maximum across-source validity for subjective measures may not be more than .30. If in a study two different subjective measures approach this correlation in multi-source data, researchers need to be aware that these measures may in fact be strongly similar or even tautological.

Another result of this study is that there is a clear distinction between more inter-

personal and more non-interpersonal leadership styles. It is surprising that most leadership theories have come up with scales that relate to these two aspects. Since charismatic leadership is the most prototypical of the two (Lord & Maher, 1993), one might argue that charismatic leadership and consideration have more to do with the 'leadership' side of leadership. According to Daft (2003) and McCartney and Campbell (2006), a distinction can be made between a supervisor's managerial activities, such as resource planning, organizing, decision-making, problem-solving, and controlling, and a supervisor's leadership activities, which mainly revolve around the interpersonal relationships between the supervisor and his/her subordinates. If we abide by this distinction and, in the light of the results of this study, transactional leadership, which incorporates controlling behaviours, and initiating structure (which includes planning, organizing, and decision-making behaviours), has more to do with the 'managerial' side than with the 'leadership' side of supervisor activities. Thus, future research might like to distinguish between prototypical leadership and management dimensions of supervision.

Overall, this study shows the strong ties between leadership and personality ratings. Practically, this research suggests that, in assessment situations, both charismatic leadership and leader's consideration can be captured almost fully by the most important personality dimensions. Using personality instruments instead of, or alongside, leadership instruments may help assessors to obtain a more differentiated view of the strong and weak areas of a potential manager/leader. For instance, assessors might learn from this study that charismatic leaders have the most desirable personality profile, with low emotionality and high openness to experience setting charismatic leadership apart from other leadership styles. Leaders who show consideration are the most interpersonal involved through high extraversion, high agreeableness and high emotionality. Transactional leaders are the most non-interpersonal, by virtue of their high conscientiousness. Leaders who initiate structure are also conscientious, but in contrast to transactional leaders exhibit their conscientiousness in a somewhat disagreeable way. Passive leaders come across as agreeable, but also introvert and non-conscientious. Are we rating (interpersonal) personality when rating leadership? Especially for charismatic leadership and leader's consideration, the answer from this study appears to be affirmative.

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Note

1. For a more recent version of the HEXACO-PI, please contact the first author, Kibeom Lee (kibeom@ucalgary.ca), or Michael Ashton (mashton@brocku.ca).

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